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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/491,994	01/26/2000	Curtis Gregory Kelsay	10990356-1	9325

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EXAMINER

WILLIAMS, KEVIN D

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/491,994

Applicant(s)

KELSAY, CURTIS GREGORY

Examiner

Kevin D. Williams

Art Unit

2854

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 20, 21, 25, 28, 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiGiovanni (US 6,381,045) in view of Pressler (US 6,005,700).

DiGiovanni teaches a device adapted to optically exchange information between an optical transducer adapted to transmit and receive information optically and an optical data port comprising a transmit fiber cable 20,55 adapted to optically transmit information optically transmitted by the optical transducer 30 from the optical transducer to the optical data port 60,15,20, a receive fiber cable 15,55 adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer 30, a first end 35 of the transmit fiber cable 20,55 being adapted to be optically coupled to the optical transducer 30 (Fig. 2) and a second end 60 of the transmit fiber cable being adapted to provide a portion of the optical data port 60,15,20, a first end 35 of the receive fiber cable 15,55 being adapted to be optically coupled to the optical transducer 30 and a second end 60 of the receive fiber cable 15,55 being adapted to provide a portion of the optical data port 60,15,20, the fiber cable providing bi-directional communication between the optical transducer and the optical data port,

the optical transducer including a receive portion (detector) and a transmit portion (emitting source).

DiGiovanni does not teach a transmit light pipe and a receive light pipe.

Pressler teaches that light pipes and fiber cables are interchangeable light transfer mediums (col. 2, lines 8-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify DiGiovanni to have light pipes as taught by Pressler as a mere design alternative.

DiGiovanni does not teach an optical interlink for exchanging information for a printer, where the transducer and the light pipe are disposed within a printer and where the light pipe is adapted to optically exchange information with the optical transducer and externally of the printer.

Pressler teaches an optical interlink for exchanging information for a peripheral device for a computer, where the transducer and the light pipe are disposed within the peripheral device and where the light pipe is adapted to optically exchange information with the optical transducer and externally of the peripheral device.

As it is known that a printer is a commonly used peripheral device for a computer, it would have been obvious to one having ordinary skill in the art to modify DiGiovanni to have the optical interlink in a printer in order to have the convenience of optically transmitting print jobs.

3. Claims 26, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiGiovanni in view of Pressler as applied to claims 20, 21, 25, 28, 30, and 31 above and further in view of Sedlmayr (US 6,034,818).

DiGiovanni in view of Pressler teach the claimed invention except for a first lens of the transmit light pipe, and first and second lens of the receive light pipe where the lenses are formed as part of the light pipes.

Sedlmayr teaches a light pipe 75 having a first lens 45 and a second lens 71 being formed as part of the pipe. Sedlmayr provides the lens 45 and the lens 71 to collimate the light being transmitted (Fig. 27A).

In view of the teaching of Sedlmayr to provide lens at each end of the pipe for the purpose of collimating light entering and leaving the pipe it would have been obvious to one having ordinary skill in the art to modify DiGiovanni in view of Pressler to have the lens as taught by Sedlmayr at both ends of the receive pipe and at the first end of the transmit pipe, in order to collimate light entering and leaving the pipes.

4. Claims 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiGiovanni in view of Pressler as applied to claims 20, 21, 25, 28, 30, and 31 above and further in view of Kawakami (US 5,848,203).

DiGiovanni in view of Pressler teach the claimed invention except for the second lens of the transmit pipe for increasing an angle of light exiting the optical data.

Kawakami teaches a lens 27A for increasing an angle of transmitted light (col. 2, lines 39-43) and it would have been obvious to one having ordinary skill in the art at the

time of the invention to modify DiGiovanni in view of Pressler to have the lens as taught by Kawakami, in order to increase the angle of the light exiting the data port so that the light may be more easily received by another device.

5. Claims 22-24, and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiGiovanni in view of Pressler as applied to claims 20, 21, 25, 28, 30, and 31 above and further in view of Sedlmayr and Kawakami.

DiGiovanni in view of Pressler teach the claimed invention except for a first lens of the transmit light pipe, and first and second lens of the receive light pipe where the lenses are formed as part of the light pipes and the second lens of the transmit pipe for increasing an angle of light exiting the optical data. See paragraphs 3 and 4.

DiGiovanni in view of Pressler also do not teach an infrared transducer.

Sedlmayr teaches the conventionality of transmitting infrared light (col. 17, lines 39-41).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have an infrared transducer as a mere design alternative in the type of light desired to be transmitted.

Conclusion

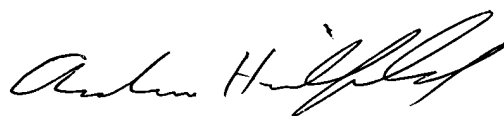
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6,356,680 to Kirk, 5,963,349 to Norte, 5,570,220 to Matsumoto, and 6,264,376 to Savage disclose similar devices.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (703) 305-3036. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4399 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

KDW
May 17, 2002



ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
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